AMENDMENTS TO THE CLAIMS

Claims 1-12 (canceled)

Claim 13 (currently amended): An illuminating and irradiating unit for an ophthalmic instrument with a parallel beam path which is a portion of an illumination beam path that has boundaries which are parallel to each other, the illuminating and irradiating unit comprising:

an illumination source which generates the illumination beam;

means for generating different specific illumination patterns and/or profiles on an eye of a patient;

means for coupling a complete one of the specific illumination patterns and/or profiles into the parallel beam path of the observation system of the ophthalmic instrument; and

an objective lens arranged in the ophthalmic instrument which is arranged downstream from the means for coupling with respect to the illumination beam generated by the illumination source, such that (1) the parallel beam path is located upstream of the objective lens, and (2) a convergent beam path, which is a portion of the illumination beam path that has boundaries which converge towards each other so as to create a focal point at the eye of the patient, is located downstream of the objective lens;

wherein the means for generating different specific illumination patterns and/or profiles includes:

a control unit configure to control which of the different specific illumination patterns and/or profiles are generated on the eye of the patient; and

optical filters, diaphragms, and/or optoelectronic light modulators which actually generate the different specific illumination patterns and/or profiles;~~and~~

wherein a spectral range and a spatial range of the illumination beam is influenced by optical filters and/or diaphragms; and

wherein the illumination source generates narrow-band light in the short-wavelength range of around 365 nm.

Claim 14 (previously presented): The illuminating and irradiating unit according to Claim 13, further comprising:

a monitoring unit for monitoring the radiation dose, for recording the irradiation patterns, and for registering the irradiated positions.

Claim 15 (previously presented): The illuminating and irradiating unit according to Claim 14;

wherein the monitoring unit has one or more interfaces for transferring data.

Claims 16-20 (canceled)

Claim 21 (previously presented): The illuminating and irradiating unit according to Claim 13;

wherein a beamsplitter which is used for coupling in light from the illumination source simultaneously serves as a blocking filter to protect the observer from excessive levels of irradiation by the illumination light.

Claim 22 (previously presented): The illuminating and irradiating unit according to Claim 13;

wherein the illumination source is not arranged within the illumination unit but rather as a separate structural component part and is connected to the means for generating specific illumination patterns and/or profiles by means of a light guide.

Claim 23 (previously presented): The illuminating and irradiating unit according to Claim 13;

wherein an eyetracker unit is provided in addition for monitoring the orientation of the illumination patterns on the areas to be irradiated during irradiation and/or for tracking.

Claim 24 (previously presented): The illuminating and irradiating unit according to Claim 13;

which is conceived as a modular unit for retrofit installation in the parallel beam path of an ophthalmic instrument.

Claim 25 (previously presented): The illuminating and irradiating unit according to Claim 13;

which can be used in combination with subassemblies such as a wavefront measuring unit and/or a topography system and/or an eye axis length measurement device for different ophthalmic instruments.

Claim 26 (previously presented): The illuminating and irradiating unit according to Claim 13;

which can be arranged in a shared housing with other subassemblies such as a wavefront measuring unit and/or a topography system and/or an eye axis length measuring device.

Claim 27-29 (canceled)